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L33: Entry 1 of 1 File: DWPI Aug 17, 2000

DERWENT-ACC-NO: 2000-619647
DERWENT-WEEK: 200060
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TITLE: Monitoring temperature of electronic component with losses, especially power device, involves detecting cooling body or coolant temperature after power loss change, adding computed difference value

INVENTOR: CORNELIUS, P

PATENT-ASSIGNEE:

ASSIGNEE	CODE
TRW AUTOMOTIVE ELECTRONICS & COMPONENTS	THOP

PRIORITY-DATA: 1998DE-1052080 (November 11, 1998)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
DE 19852080 C1	August 17, 2000		009	G01K003/08

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
DE 19852080C1	November 11, 1998	1998DE-1052080	

INT-CL (IPC): G01 K 3/08; H01 L 23/34; H05 K 7/20

ABSTRACTED-PUB-NO: DE 19852080C
BASIC-ABSTRACT:

NOVELTY - The method involves detecting the temperature (Tmess) of the cooling body or coolant at a detection point that reaches equilibrium temperature after a change in power loss with a time constant greater than that with which the component reaches its equilibrium temperature The temperature of the component is determined by the addition of a temperature difference value to the detected temperature The difference value is computed using a pre-existing relationship to the power loss or on power loss and the time difference after a change in power loss.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for an arrangement for monitoring the temperature of an electronic component with losses, especially a power semiconductor.

USE - For monitoring the temperature of an electronic component with losses, especially a power semiconductor, that is cooled with a cooling body or coolant.

ADVANTAGE - A highly accurate temperature measurement is achieved with economically priced sensors and the sensor mounting costs can be kept low.

DESCRIPTION OF DRAWING(S) - The drawing shows a graphical representation of a method of monitoring the temperature of an electronic component

temperature at detection point Tm ess

temperature difference proportional to power loss deltaT2

CHOSEN-DRAWING: Dwg.3/4

TITLE-TERMS: MONITOR TEMPERATURE ELECTRONIC COMPONENT LOSS POWER DEVICE DETECT COOLING BODY COOLANT TEMPERATURE AFTER POWER LOSS CHANGE ADD COMPUTATION DIFFER VALUE

DERWENT-CLASS: S03 U11 V04

EPI-CODES: S03-B01C; U11-D02D1; V04-T03;

SECONDARY-ACC-NO:
Non-CPI Secondary Accession Numbers: N2000-459181